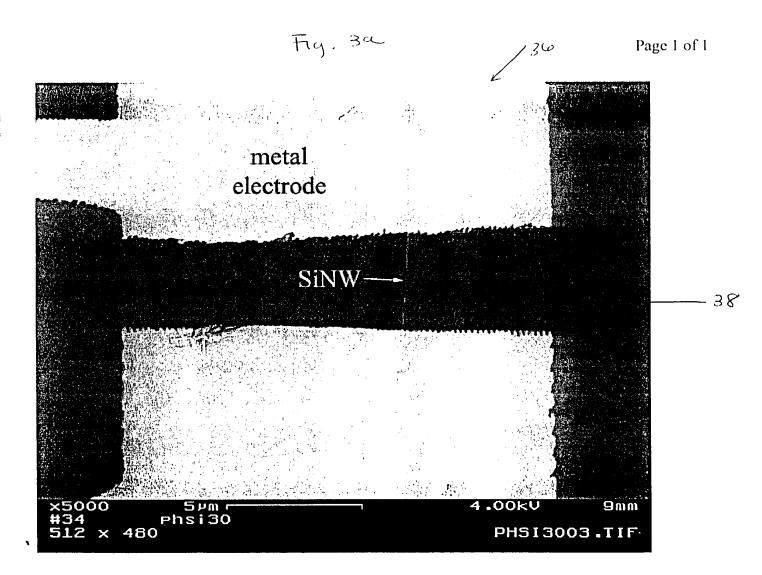
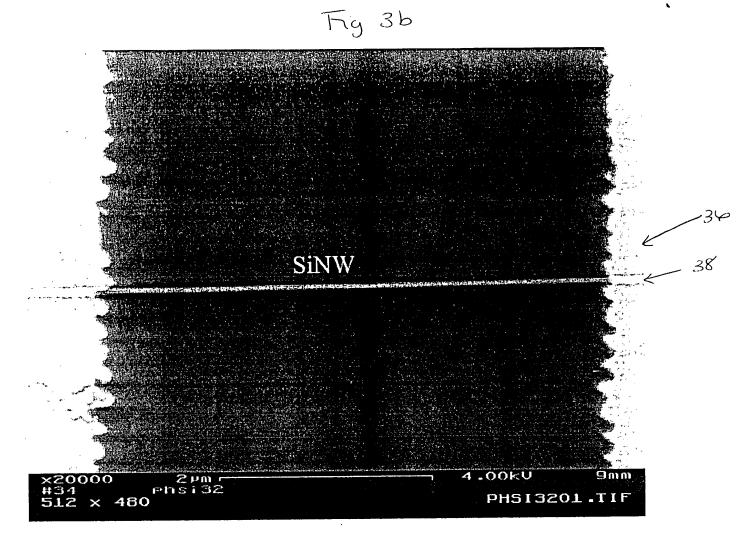


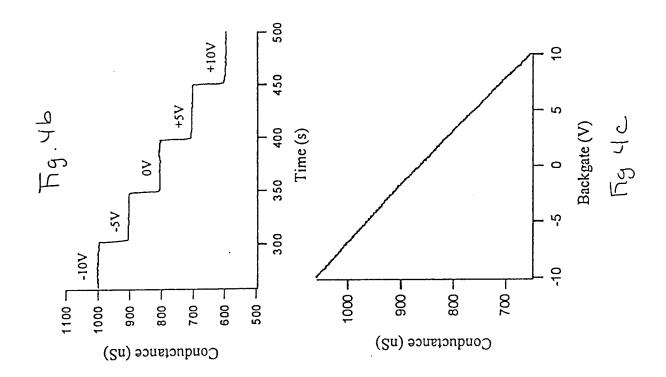
Figure 2a

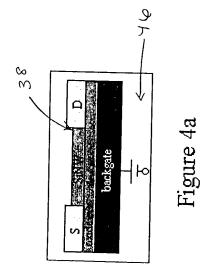
Figure 2b



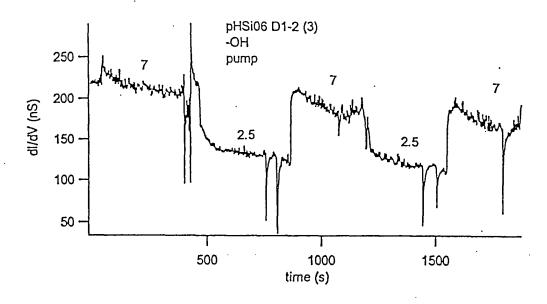




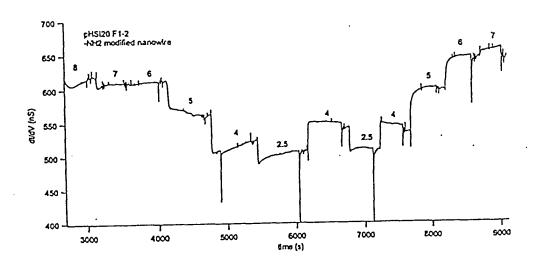




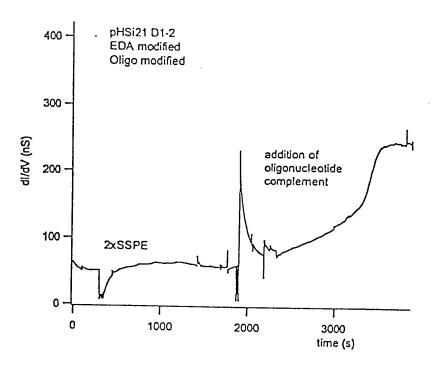
F16.50

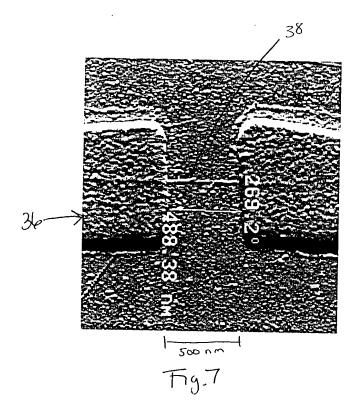


F16.56

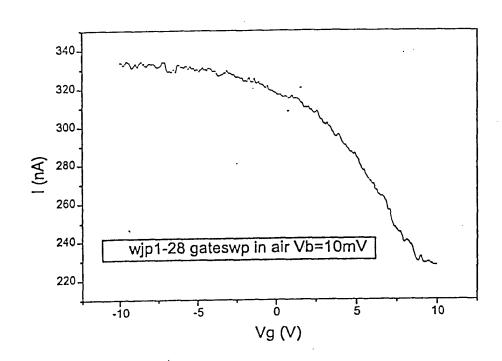


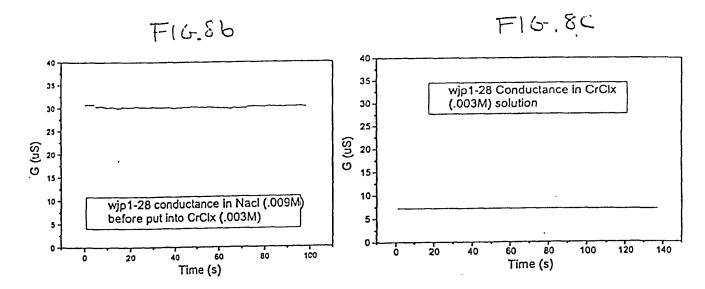
F16.6

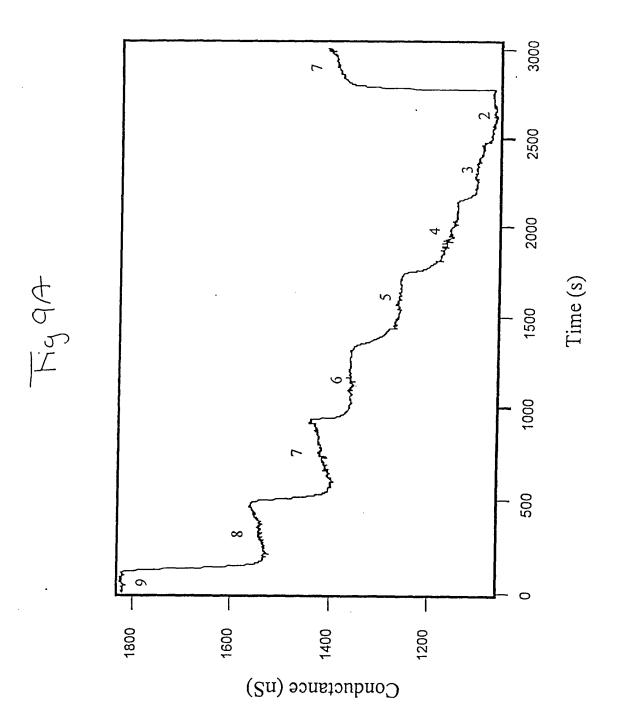


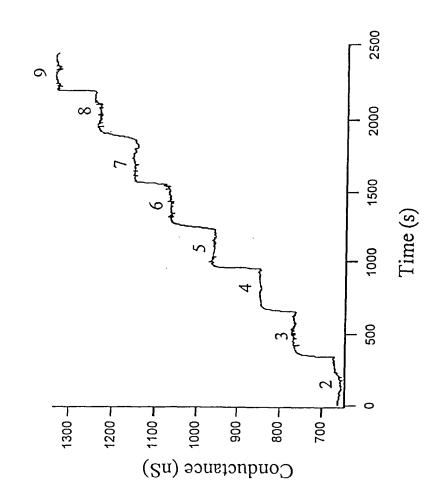


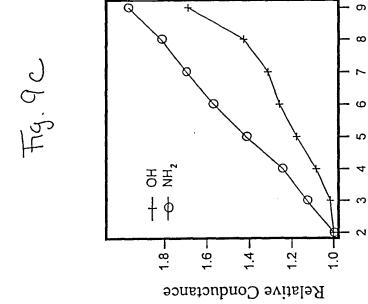
F16.80c



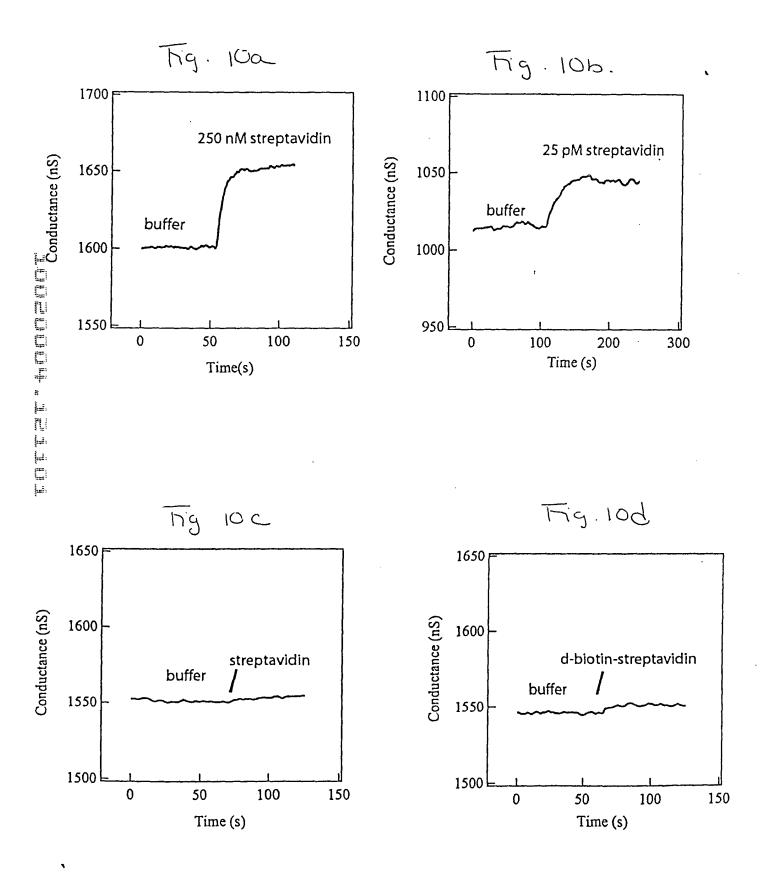


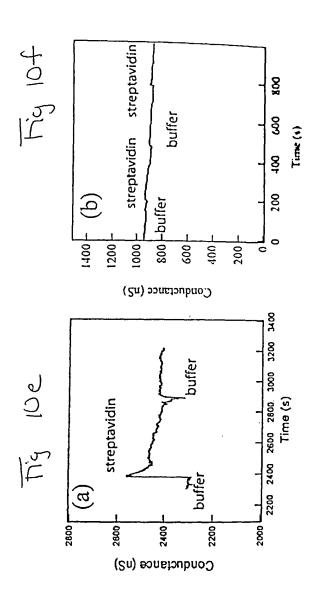






pH







1500

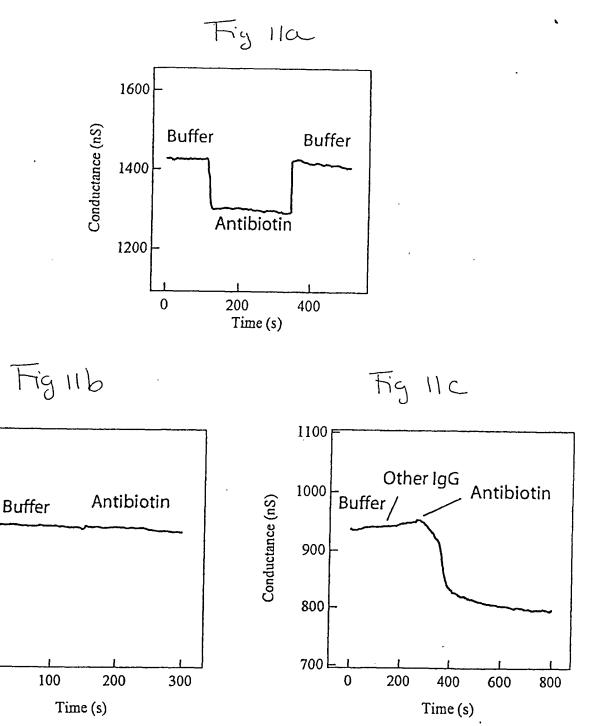
1400

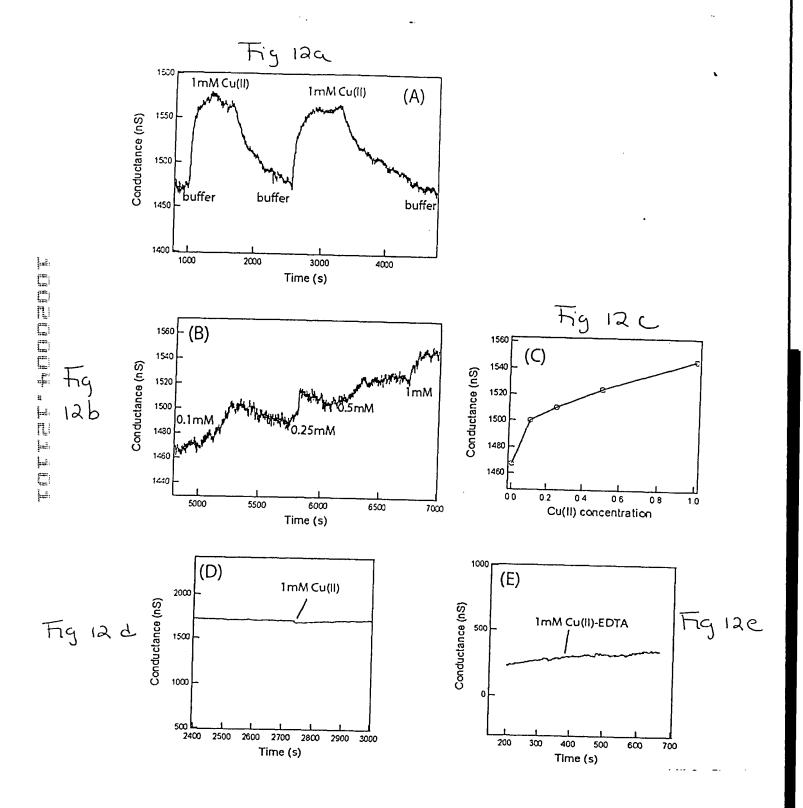
1300

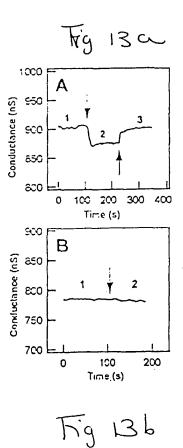
1200

0

Conductance (nS)







Sensitivity dependent on doping and size of nanowires

for single charge detection

Threshold doping density

Doping density (number/cm<sup>3</sup>)

Doping density (number/cm<sup>3</sup>)

Doping density (number complete complete

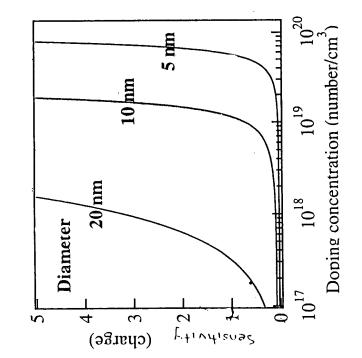
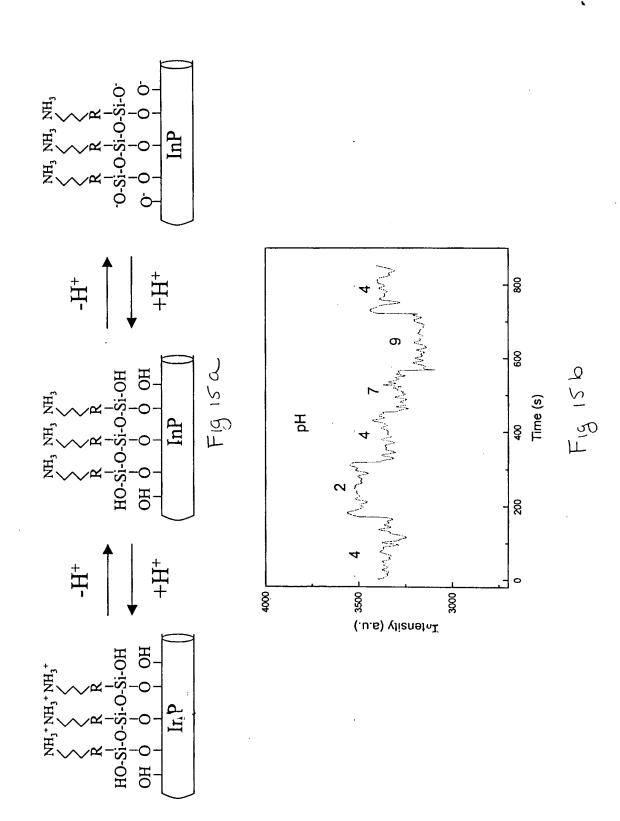
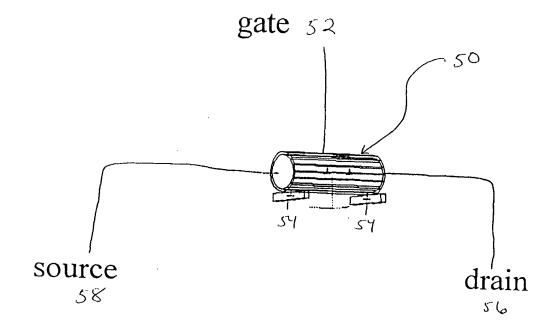


FIG HA

## InP pH Sensor

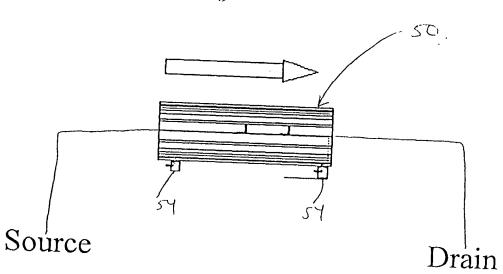


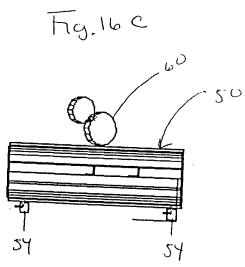
Trg. 160





Tig. 16 b





Tig. 16d

